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EXAMINER	
WILLIAMS, KIMBERLY A	
ART UNIT	PAPER NUMBER
2626	7

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/384,585	YAMAZAKI, YOSHIROU	
	Examiner	Art Unit	
	Melanie M Vida	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. This action is responsive to an amendment filed on 7/18/03. **Claims 1-14** are pending. **Claims 15-24** have been added. The double patenting rejection has been withdrawn in view of the arguments on Paper No. 6, (pg. 16). The Examiner agrees that the pre-scan and fine scan in the copending application occur more or less contemporaneously, and that there is no concern regarding the deterioration of images over time.

Drawings

2. The drawings were received on 7/18/03. These drawings are acceptable.

Response to Arguments

3. Applicant's arguments filed on 7/18/03 have been fully considered but they are not persuasive. The applicant, notes that **claim 1,** recites, "calculation means which calculates, based on image characteristic data ... from image data obtained by ... said reading means, and image characteristic data acquired by said acquisition means, a correction parameter for correcting image quality deterioration of the image". Independent **claims 2, 8, and 9**, recite a similar feature. The Applicant argues that Terashita fails to teach or suggest at least the above-recited feature. Specifically, the Applicant argues that Terashita's film characteristics are not equivalent to the Applicant's image characteristics, (emphasis added). However, Terashita does suggest at least the above-recited feature, in that the film characteristics are broadly defined to determine an abnormal frame or an abnormal film, as shown in Table 1, (col. 29-30, lines 49-67 and col. 31-32, lines 1-18). More specifically, Terashita broadly defines film characteristic data corresponding to either a film type or image data, (col. 30, lines 20-23). Film characteristics

include if the change in RGB is greater to or equal to 0.10, a determination is made that the print frame is abnormal, and pixels exhibiting high saturation are also used in the determination of the exposure amount", (col. 20, lines 11-15). Terashita states, "... the change in the original image included in a film which has undergone deterioration over time, a color change in the original image included in a film photographed with a photographing light source other than daylight, and a color change in the original image included in a film exhibiting variations in characteristics, (col. 1, lines 62-67; col. 20, lines 11-21). Further, Terashita explains of cases where an abnormal frame undergoes a peculiar change at the time of photographing, such as a change in the photographing light source, (col. 28, lines 56-66) (emphasis added). Terashita's definition for abnormal film characteristics is broadly described, and parts of the definition are clearly equivalent to the Applicant's image characteristics, as the specification, states, "the image processing is made by a determination ... a kind of light source for photographing, or other characteristic amounts" (pg. 34, lines 9-11). Furthermore, the Applicant's specification recites, "deterioration is caused in a film image .... under the influence of ... aged deterioration of a photographic film", that conflict with Applicant's arguments in Paper No. 6, pg. 20, 9-13, (Specification, pg. 1, lines 5-11; pg. 6, lines 18-20; pg. 38, lines 1-3). Therefore, the image characteristics as claimed by the Applicant also depend on the underlying film characteristics. As a result, independent claims 1, 2, 8, and 9 are not distinguishable over Terashita. Dependent claims 3-5 and 10-14 depend directly or indirectly from independent claims 1, 2, 8, and 9. Therefore, these dependent claims are not distinguishable from Terashita for at least the reasons stated with respect to the independent claims, as well as on their own merits.

Claim Objections

4. **Claim 2** is objected to because of the following informalities: There is an apostrophe inadvertedly placed in the amended claim: "...reading an 'image...", (line 2). Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1- 16, 18** are rejected under 35 U.S.C. 102(b) as being anticipated by Terashita, U.S. Patent Number 5,767,983, (hereinafter, Terashita).

Regarding **claim 1,** Terashita teaches a photographic printing apparatus, as shown in figure 1, which reads on an image processing apparatus, (col. 13, lines 1-22). A scanner (28), having a CCD, which reads on "reading means for reading", reads the original image on the negative film in a plurality of segments, which reads on "an image recorded on a recording material", (col. 14, lines 11-18).

The input/output port (34) is connected to the photometric data memory (32) so as to control the read and write timings, which reads on "an acquisition means", (col. 14, lines 60-64). Further, the sets of photometric data on the frame are read from the memory in step (136), which reads in "acquiring image characteristic data which, when an image recorded on the recording

material was formerly read", (col. 18, lines 7-9). The extracted film characteristics are stored in the photometric data memory (30), which reads on "was obtained based on a result of the former reading and stored in storage means", (col. 15, lines 51-54). The exposure-amount determining device (32), determines the exposure amount by using image data, which reads on "calculation means, which calculates", (col. 32, lines 64-66). The exposure amount is determined by the stored film characteristic data and the image data, which reads on "based on image characteristic data obtained from image data obtained by the reading of said reading means, and image characteristic data acquired by said acquisition means", (col. 32, lines 32-36). The correct exposure amount is determined, which reads on "a correction parameter", (col. 32, line 65- col. 33, line 3). The exposure amount control routine stored in ROM (38) is executed by the CPU (36) of the exposure amount-determining device (32), which reads on "correction means, which corrects", (col. 14, lines 53-53-59). This routine is used to obtain a high-quality print, as shown in figure 15, (steps 220-226), which reads on "correction means which corrects, based on the correction parameter calculated by said calculation means, the image data", (col. 32, line 65 through col. 33, line 3).

Regarding **claim 2,** Terashita teaches a photographic printing apparatus, as shown in figure 1, which reads on an image processing apparatus, (col. 13, lines 1-22). A scanner (28), having a CCD, which reads on "reading means for reading", reads the original image on the negative film in a plurality of segments, which reads on "an image recorded on a recording material", (col. 14, lines 11-18).

The input/output port (34) is connected to the photometric data memory (32) so as to control the read and write timings, which reads on "an acquisition means", (col. 14, lines 60-64).

Further, the sets of photometric data on the frame are read from the memory in step (136), which reads in "acquiring image characteristic data which, when an image recorded on the recording material was formerly read", (col. 18, lines 7-9). The extracted film characteristics are stored in the photometric data memory (30), which reads on "obtained based on a result of the former reading and stored in storage means", (col. 15, lines 51-54). Terashita teaches a method to detect a print frame that has a peculiar change in the photographing light source at the time of photographing, which reads on "and acquiring information for specifying reading conditions in the former reading", (col. 28, lines 58-64). The image data on the print frame in addition to the film characteristic data, which reads on "the image characteristic data" stored in the first memory, and the average image data stored in the third memory, which reads on "and the information being stored in storage means when the image was formerly read", it is possible to detect a peculiar change to the print frame which occurred at the time of photographing, (col. 28, lines 58-64).

The exposure-amount determining device (32), determines the exposure amount, which reads on "calculation means, which calculates", (col. 32, lines 64-66). The exposure amount is determined by the stored film characteristic data and the image data, which reads on "based on information for specifying the reading conditions acquired by said acquisition means, converts at least one of image data obtained by the reading of said reading means and image characteristic data acquired by said acquisition means", (col. 32, lines 32-36). Terashita teaches that the film-characteristic correction value is to correct the film characteristic data into a value which will match the image on the negative film in the determination of the exposure amount, which reads

on "so that both data each becomes data equal to that obtained by reading an image under similar reading conditions", (col. 36, lines 61-65).

The correct exposure amount is determined, which reads on "and thereafter, obtains image characteristic data from the image data, and based on both the image characteristic data, calculates a correction parameter for correcting image quality deterioration of the image", (col. 38, line 64). The exposure amount control routine stored in ROM (38) is executed by the CPU (36) of the exposure amount-determining device (32), which reads on "correction means, which corrects", (col. 14, lines 53-53-59). This routine is used to obtain a high-quality print, as shown in figure 15, (steps 220-226), which reads on "correction means which corrects, based on the correction parameter calculated by said calculation means, the image data", (col. 32, line 65 through col. 33, line 3).

Regarding, **claim 3,** Terashita teaches that the reference image is placed in an image printing position, and the scanner (28) divides it into a multiplicity of pixels, so that photometry can be conducted for each color R, G, B, which reads on "the reading conditions include at least one of an image reading position on the recording material, a spectral sensitivity of said reading means using for reading, and a resolution at which an image is read", (col. 15, lines 10-23).

Regarding **claims 4, and 5,** Terashita teaches of a negative film (20) is loaded on a negative carrier (21), which reads on "the recording material is a photographic film", (col. 15, lines 8-9). Terashita teaches of a photometric data memory (30), electrically connected to the scanner (28), as shown in figure 1, which reads on "the storage means is any one of a semiconductor memory mounted to a cartridge in which the photographic film is accommodated", (col. 14, line 29-31). A transparent magnetic layer on the negative film wherein

density-correction or color-correction information is recorded, which reads on "as a magnetic recording layer formed with a magnetic material being applied to the photographic film" (col. 31, lines 49-59).

Referring to **claim 6, and 7,** Terashita teaches of film characteristics that distinguish an abnormal frame from a normal frame such as a change in RGB greater than or equal to 0.10, and pixels exhibiting high saturation are used to determine the exposure amount at the time of photographing, which reads on "image characteristic data", (col. 20, lines 11-21; col. 22, lines 53-62). As shown in figures 8A, the regions H1 and H2 in the reference image, are set, and the density of one density step (a region having a fixed density of each region H1, H2), is determined such that the film characteristic data is extracted from a plurality of densities, which reads on "is data which represents a predetermined image characteristic amount of each of a fixed number of blocks into which an image is divided", (col. 33, lines 54-58; lines 58-62). The purpose of determining the film-characteristic correction value is to correct the film characteristic data into a value which matches the image on the negative film in the determination of the exposure amount, which reads on "and said calculation means compares image characteristic data obtained from the image data and image characteristic data acquired by said acquisition means for each of the blocks and calculates the correction parameter for each of the blocks", (Col. 36, lines 61-64).

Regarding **claim 8, 9, and 15,** the image correcting method, please refer to the like teachings of claim 1 and 2, respectively. Regarding **claim 10,** please refer to the like teachings of claim 3. Regarding **claim 11,** please refer to the like teachings of claim 4. Regarding **claim 12,** please refer to the like teachings of claim 4. Regarding **claim 13,** please refer to the like

teachings of claim 6. Regarding **claim 14,** please refer to the like teachings of claim 6. Regarding, **claim 15,** please refer to the corresponding rejection in claims 1 or 2. Regarding, **claims 16,** please refer to the corresponding rejection in claims 3 and 6.

Regarding, **claim 18,** Terashita teaches of reading data from memory (220), as shown in figure 15, and calculating a correction value Fi(Do) to calculate corrected film characteristic data, which reads on "compensating for differences between the initial imaging conditions and current imaging conditions". Further, Terashita teaches of determining normalizing conditions (12), as shown in figure 16a, which reads on "determining a correction of the current image data is required based on a result of the compensating step".

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. **Claims 17, 21-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Terashita, U.S. Patent Number 5,767,983, (hereinafter, Terashita) as applied to claim 1 above, and further in view of Suzuki et al. (USP 5,768,403; hereinafter Suzuki).

Regarding, **claim 17,** Terashita teaches the method of claim 16, but fails to teach that "each block characteristics data includes at least one of average densities of color components

within the block, color densities of a pixel determined to be a high light point of the block, and color densities of a pixel determined to be a shadow point of the block".

However, Suzuki teaches of an conventional image processing apparatus, as shown in figures 1 and 2B, with a smoothing filter (34), which reads on "wherein the block characteristics data includes at least one of average densities of color components within the block", wherein a primary identifying stage includes an 8x8 block generator (61) with a min detector (62) and a max detector (63) for detecting a character area and a non-character area, respectively, which reads on "color densities of a pixel determined to be a high light point of the block and densities of a pixel determined to be a shadow point of the block", (col. 1, lines 25-26; lines 51-53; col. 4, lines 12-16).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify Terashita's image processing method with Suzuki's method of determining image block characteristics.

One of ordinary skill in the art would have been motivated to detect image block characteristics to improve area-identifying performance by using the block basis area identification, given the express suggestion of Suzuki (col. 4, lines 36-40).

Regarding, **claim 21-23,** please refer to the corresponding rejection in claim 17.

9. **Claims 19-20, 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Terashita, U.S. Patent Number 5,767,983, (hereinafter, Terashita) as applied to claim 1 above, and further in view of Kubo et al (USP 5,828,461; hereinafter Kubo).

Regarding, **claim 19,** Terashita teaches the method of claim 18, but fails to expressly disclose "determining whether the spectral sensitivities of the initial scanner and a current

scanner coincide and calculating a spectral sensitivity conversion factor when it is determined that the spectral sensitivities do not coincide; and determining whether an initial reading position of the image on the recording material and a current reading position are different and correcting the current reading position when it is determined that the reading positions are different".

However, Kubo inherently teaches, "determining whether the spectral sensitivities of the initial scanner and a current scanner coincide and calculating a spectral sensitivity conversion factor when it is determined that the spectral sensitivities do not coincide; and determining whether an initial reading position of the image on the recording material and a current reading position are different and correcting the current reading position when it is determined that the reading positions are different", as evidenced by the scanner/original characteristics correcting portion (44) with LUT1 and matrix1 and LUT2 for the image data converting portion (40), as shown in figure 2, and a selection of a scanner type as shown in figure 3.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify Terashita's image processing method with Kubo's compensating step.

One of ordinary skill in the art would have been motivated to have a compensating step in order to convert image data for different scanner types.

Regarding, **claim 20,** Kubo inherently teaches, "determining whether an initial resolution and a current resolution are different and calculating a resolution correcting factor when it is determined that the resolutions are different", as evidenced by the settings for print output, during a fast scan (65), a pre-scan (66), and a fine scan (67), respectively, as shown in figure 4.

Regarding, **claim 24,** please refer to the corresponding rejection in claim 19.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie M Vida whose telephone number is (703) 306-4220. The examiner can normally be reached on 8:30 am 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on (703) 305-4863. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Melanie M Vida
Examiner
Art Unit 2626

MMV

KAWilliams

KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER

October 6, 2003